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COMPLETE SPECIFICATION

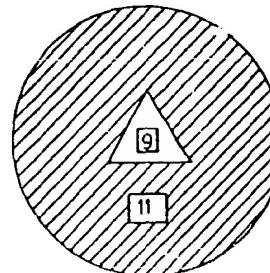
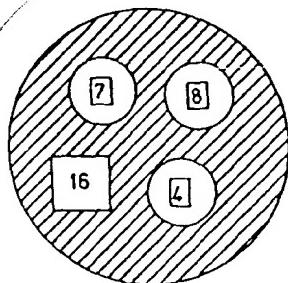
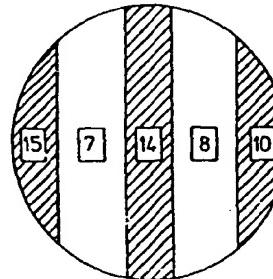
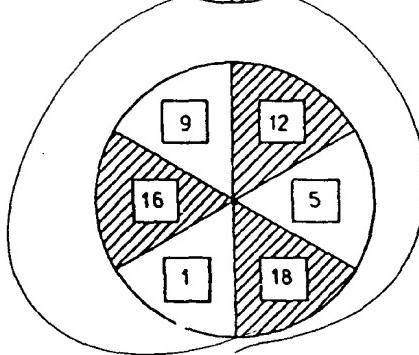
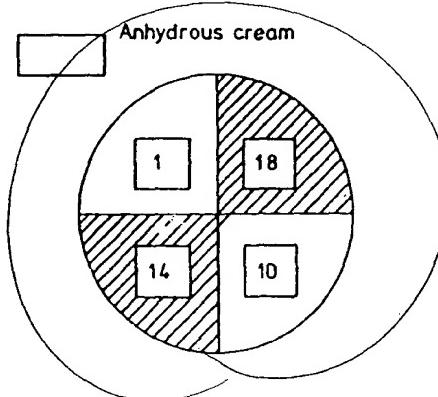
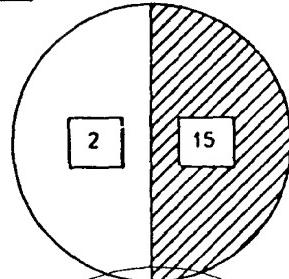
Henkel

1 SHEET

This drawing is a reproduction of
the Original on a reduced scale



Fat-free gel



1 486 634

PATENT SPECIFICATION

(11) **1 486 634**

- (21) Application No. 44985/74 (22) Filed 17 Oct. 1974
(31) Convention Application No. 2 352 266
(32) Filed 18 Oct. 1973 in
(33) Fed. Rep. of Germany (DT)
(44) Complete Specification published 21 Sept. 1977
(51) INT CL¹ A61K 7/40
(52) Index at acceptance A5B 771



(54) PACKAGES CONTAINING TWO OR MORE SKIN-CARE AGENTS IN CONTACT

(71) We, HENKEL & CIE, GMBH., a German Company, of 67 Henkelstrasse, Duesseldorf-Holthausen 4000, Germany, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:-

The present invention relates to a skin-care preparation comprising fat-free aqueous gels and anhydrous fatty creams in contact in one packaging container.

It is already known to use both anhydrous fatty creams and also fat-free aqueous gels as skin-care agents in special limited spheres of application. The anhydrous fatty creams which are here concerned are those agents for the care and protection of the skin which are particularly suitable for persons having extremely dry skin. They can, moreover, be used generally to afford protection against the influences of the weather, which severely tax the skin, such as wind, rain, snow; the effect of strong sunshine; and long bathing in fresh or salt water. A further sphere of application for anhydrous fatty creams is their use as night creams and in the care of severely taxed rough areas of skin, such as for example hands, elbows and heels. By means of special additions, such as substances which absorb ultra-violet rays, moisture agents or other additives, there can be produced on this basis protective agents against the sun, moisturising creams or special creams having a particular effect. Creams of this type rapidly melt on the skin and can therefore be spread easily in a thin and even layer.

The fat-free aqueous gels are also valued as skin-care agents which can be used in special spheres of application. The substances here concerned are chiefly gels based on tragacanth, gelatine, alginates, polyacrylic acid in combination with glycerine and special additives. They are particularly suitable as protective agents during the day and as a foundation for make-up when the facial skin is extremely greasy, and also in the care of roughened hands. At the same time they can be provided with special additives in order to obtain special creams having a particular effect. The fat-free aqueous gels can also be spread easily on the skin and have a refreshing and cooling effect thereon.

Since the consumers have a wide range of skin types and the skin-care agents are intended to serve the most diverse purposes, it has hitherto been necessary to use various mixtures of the above ingredients and to keep them in numerous individual containers. Such mixtures however require an emulsifying agent if they are to remain stable in storage. It has been found that such emulsifiers often give rise to allergies in persons with sensitive skin.

The present invention has for its object the provision of a skin-care combination, which permits the consumer himself to prepare the cream suited to his skin type, the purpose and the weather, which cream is inexpensive and easily accessible.

According to the present invention there is provided a skin-care preparation comprising at least one fat-free aqueous gel and at least one anhydrous fatty cream, the gel and the cream being present in a packaging container separately and without partitioning walls between said gel and cream, the gel and the cream being independently accessible in and separately removable from the container and in which the disposition of the gel and the cream in the container enable the gel and the cream to be simultaneously removed from the container.

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Substances concerned in the case of the fat-free aqueous gels, on which the combined skin-care agent is based, are usually preparations based on thickeners, such as for example tragacanth, gelatine, alginates, agar-agar, methyl cellulose, carboxymethyl cellulose, polyacrylic acid, colloidal silicic acid, multivalent alcohols such as glycerine, propylene glycol, sorbitol, special additives, such as moisturising agents, extracts of herbs, preservatives, opacifiers, colouring substances and perfumes.

The anhydrous fatty creams on which the combined skin-care agent is based, are usually preparations based on natural fats, oils, waxes, Vaseline [Registered Trade Mark], paraffins, fatty alcohols, metallic salts of long-chained fatty acids, special additives, such as substances which absorb ultra-violet rays, moisturising agents, preservatives, opacifiers, colouring substances and scented oils.

Since neither product is an emulsion, it is not necessary to use emulsifying agents, so that the skin-care preparation according to the invention is particularly suitable for persons having sensitive skin, who tend towards allergies in respect of individual emulsifying agents.

The skin-care preparation according to the invention enables the consumer himself to prepare the optimum cream for his skin-type, the respective purpose and the weather, by removing portions of the anhydrous fatty cream and the fat-free aqueous gel from the container and mixing same, or, if need be, of using the anhydrous fatty cream or the fat-free aqueous gel alone. The mixing of the two basic creams in the desired ratio can be effected quickly on the back of the hand or in the lid of the container. The skin-care agent thus produced is quite unexpectedly comparable to an emulsion of creamy consistency with regard to its cosmetic properties, its distributability and its capacity for penetration. The components of the skin-care preparation of the invention do not become intermingled in the container even when kept for quite long periods.

The appearance of the two components of the combined skin-care agent can vary considerably, thereby providing a differentiation of the individual components in accordance with its nature and further substances contained therein e.g. substances for filtering ultra-violet rays. The anhydrous fatty cream without further additives is slightly cloudy, almost transparent. The addition of white pigments, e.g. titanium dioxide, zinc oxide, magnesium oxide or metallic soaps, preferably metal stearates or palmitates, gives rise to a white cream. A white colouring is also obtained by the addition of an opacifier, preferably a copolymer based on polystyrene. A coloured, vitreous cream is obtained by the sole addition of an oil-soluble colouring substance. The general addition of oil-soluble colouring substances with opacifiers, colouring pigments, gold-, silver- or colouring gloss pigments produces a wide range of variations in colour. The same variety of appearance from the clear transparent gel to the coloured gel with gloss effects can be achieved in the case of the fat-free gel, wherein water-soluble colouring substances are used instead of oil-soluble colouring substances.

The packaging containers which are provided, preferably transparent glass or plastic containers in the form of a jar or a pot, are filled with the two types of component in various arrangements. Various possibilities for arranging them can be seen in the accompanying drawings.

The filling can be effected in such a manner that either before or during the filling a partitioning member is inserted into the jar, and is removed on completion of filling. This can be readily effected after passing through a cooling or normal path, since both products are thixotropic and filling is effected at approximately 30 to 35°C. However, the two products can each be supplied, without an insertion from one or several nozzles to the jars, during which process different arrangements and irregular patterns are possible. It is also possible first to half fill the pot with one cream and then to insert the other cream in the centre from a nozzle which is lowered to the bottom of the pot and then slowly raised during filling. In this way a substantially round ray-shaped core is produced in the centre.

Example.

The following examples of anhydrous fatty creams and fat-free aqueous gels may be used in the skin-care preparation of the invention, being filled into containers as indicated in the accompanying drawings.

*Slightly cloudy, almost transparent, anhydrous fatty cream.
(Cream No. 1).*

| | | |
|---|--|---------------------|
| 5 | myristyl alcohol | 2.0 parts by weight |
| | cetyl alcohol | 5.0 " |
| | microcrystalline paraffin-hydrocarbons | 20.0 " |
| | liquid paraffin | 70.5 " |
| | triglyceride of 12-hydroxystearic acid | 2.0 " |
| | Scented oil | 0.5 " |

*White anhydrous fatty cream.
(Cream No. 2).*

| | | |
|---|--|---------------------|
| 0 | myristyl alcohol | 2.0 parts by weight |
| | cetyl alcohol | 4.0 " |
| | microcrystalline paraffin-hydrocarbons | 20.0 " |
| | liquid paraffin | 70.7 " |
| 5 | colloidal silicic acid | 2.0 " |
| | titanium dioxide | 1.0 " |
| | scented oil | 0.3 " |

Various white anhydrous fatty creams.

| | Cream No. | 3 | 4 | 5 | 6 | |
|----|--|------|------|------|------|-----------------|
| 20 | Vaseline (Registered Trade Mark) | 10.0 | 10.0 | 10.0 | — | parts by weight |
| | Polyethylene wax | — | — | — | 10.0 | " |
| 25 | Hard Paraffin | 20.0 | 15.0 | 15.0 | — | " |
| | Liquid paraffin | 49.5 | 52.5 | 50.4 | 73.5 | " |
| 30 | Ethyleneglycolmono-stearate | — | — | 5.0 | — | " |
| | Isopropylmyristate | 5.0 | — | — | 5.0 | " |
| 35 | 2-octyldodecanol | — | 5.0 | 10.0 | — | " |
| | Triglyceride of middle-chain fatty acids C_8-C_{12} | 5.0 | 5.0 | — | — | " |
| | Stearylalcohol | 4.0 | 5.0 | — | 5.0 | " |
| | Cetyl alcohol | — | — | 4.0 | 3.0 | " |
| 40 | Aluminium stearate | 2.0 | — | — | — | " |
| | Colloidal silicic acid | — | — | — | 2.0 | " |
| 45 | Titanium dioxide | 1.0 | 0.5 | — | 1.0 | " |

Various white anhydrous fatty creams.

| | | Cream No. 3 + 4 | 5 | 6 | |
|---|---------------|--------------------------|-----|-----|-------|
| | Zinc oxide | 3.0 | 4.0 | — | — " |
| 5 | Zinc stearate | — | 3.0 | 5.0 | — " |
| | Perfume | 0.5 | — | 0.6 | 0.5 " |

Coloured anhydrous fatty creams.

| | | Cream No. 7 + 8 | 9 | |
|----|---|--------------------------|------|---------------------|
| 10 | Myristyl alcohol | 2.0 | 2.0 | 2.0 parts by weight |
| | Cetyl alcohol | 4.0 | 4.0 | 4.0 " |
| | Microcrystalline paraffin-hydrocarbons | 20.0 | 20.0 | 20.0 " |
| | Liquid paraffin | 70.3 | 65.4 | 69.5 " |
| 15 | Hardened ricinoleic acid | 2.0 | — | — " |
| | Aluminium stearate | — | 2.0 | — " |
| | Colloidal silicic acid | — | — | 2.0 " |
| | Titanium dioxide | 0.7 | 1.0 | 0.5 " |
| 20 | Sico-fat blue 50401 N = C-ext. blue 12, 0.2% in liquid paraffin | 0.6 | — | — " |
| | Sico-fat red = C-red 2 0.05% in liquid paraffin | — | 5.0 | — " |
| 25 | Gloss pigment of the iodine type | — | — | 1.5 " |
| | Scented oil | 0.4 | 0.6 | 0.5 " |
| | <i>Anhydrous sun-protection cream. (Cream No. 10).</i> | | | |
| 30 | Myristyl alcohol | | | 2.0 parts by weight |
| | Cetyl alcohol | | | 4.0 " |
| | Microcrystalline paraffin-hydrocarbons | | | 20.0 " |
| | Liquid paraffin | | | 68.5 " |
| | Triglyceride of 12-hydroxystearic acid | | | 2.0 " |
| 35 | Titanium dioxide | | | 1.0 " |
| | Ethylhexyl-p-methoxy-cinnamic acid ester | | | 2.0 " |
| | scented oil | | | 0.5 " |

Fat-free aqueous gels having herb extracts.

| | | Gel No. 11 | 12 | 13 | |
|----|--|---------------|------|-------|-----------------|
| 5 | Carboxyvinylpolymer Car- bopol 940 [Registered Trade Mark] | 0.6 | — | — | parts by weight |
| 5 | Gelatine | — | 4.0 | — | " |
| 10 | Colloidal silicic acid | — | — | 10.0 | " |
| 10 | Glycerine | 8.0 | 15.0 | 40.0 | " |
| 10 | Sorbitol | — | — | 30.0 | " |
| 15 | Ethanol | — | 3.0 | — | " |
| 15 | Triethanolamine | 0.6 | — | — | " |
| 15 | Herb extracts | 1.0 | 2.0 | 5.0 | " |
| 15 | Ethoxylated partial glycerides of fatty acids C ₈ —C ₁₂ | — | 1.0 | — | " |
| 20 | Opacifier based on styrene copolymer SC 9142 (BASF) [Regis- tered Trade Mark] | — | 0.4 | — | " |
| 20 | L-blue Z 5000 = C-blue 20, 1% aqueous solution | 0.2 | 0.3 | 0.25 | " |
| 25 | 40% suspension of zinc stearate | 1.0 | — | 0.5 | " |
| 25 | Preservative | 0.2 | 0.2 | 0.2 | " |
| 25 | Scented oil | 0.5 | 0.5 | 0.5 | " |
| 25 | Water | 87.9 | 73.6 | 13.55 | " |

Fat-free aqueous gels of various colours.

| | | Gel No. 14 | 15 | 16 | 17 | |
|----|--|---------------|------|------|-----|-----------------|
| 30 | Carboxyvinylcopolymer Car- bopol 940 [Registered Trade Mark] | 0.8 | — | — | — | parts by weight |
| 35 | Carboxymethylcellulose | — | 5.0 | — | — | " |
| 35 | Methylcellulose | — | — | — | 2.5 | " |
| 35 | Sodium alginate | — | — | 2.0 | — | " |
| 35 | Glycerine | — | 10.0 | 10.0 | — | " |
| 40 | 1,2-propylene glycol | 5.0 | — | — | 5.0 | " |
| 40 | Sorbitol | — | — | 5.0 | — | " |

Fat-free aqueous gels of various colours.

| | | Gel No. 14 | 15 | 16 | 17 | |
|----|---|---------------|------|------|---------------------|---|
| | Ethanol | 5.0 | — | 5.0 | — | " |
| 5 | Triethanolamine | 0.8 | — | — | — | " |
| | Moisturising agent Hydroviton [Registered Trade Mark] | 0.5 | 1.0 | — | 2.0 | " |
| 10 | Ethoxylated partial glycerides of fatty acids C ₈ —C ₁₂ | 1.0 | — | 2.0 | 0.5 | " |
| | Opacifier based on styrene copolymer SC 9142 BASF [Registered Trade Mark] | 0.5 | — | — | — | " |
| 15 | Lemon yellow Z 1100 = C-yellow 11 10% aqueous solution | 0.8 | — | 0.6 | — | " |
| 20 | L-red Z 3000 = C-red 49 5% aqueous solution | — | 0.2 | — | 0.4 | " |
| | Gloss pigment of the iodine type | — | 1.0 | 1.5 | — | " |
| | Preservative | 0.2 | 0.2 | 0.2 | 0.2 | " |
| | Scented oil | 0.5 | 0.5 | 0.5 | 0.5 | " |
| 25 | Water | 84.9 | 82.1 | 73.2 | 88.9 | " |
| | <i>Fat-free aqueous sun-protection gel. (Gel. No. 18).</i> | | | | | |
| | Carboxyvinylpolymer, Carbopol 940 [Registered Trade Mark] | | | | 0.8 parts by weight | |
| 30 | Glycerine | | | 5.0 | " | |
| | Triethanolamine | | | 1.5 | " | |
| | Benzimidazole sulphonic acid | | | 2.0 | " | |
| | Polyethyleneglycol MG 400 | | | 1.0 | " | |
| 35 | Opacifier based on styrene copolymer SC 9142 (BASF) [Registered Trade Mark] | | | 0.3 | " | |
| | L-red Z 3000 = C-red 49 5% aqueous solution | | | 0.3 | " | |
| | Preservative | | | 0.2 | " | |
| | Scented oil | | | 0.5 | " | |
| | Water | | | 88.4 | " | |
| 40 | Transparent plastic containers may be filled with the aforementioned anhydrous fatty creams and fat-free aqueous gels in the arrangements shown in the | | | | | |

accompanying drawing. The numbers in the individual sectors in the drawing indicate the number of the cream or gel used. The consumer then has the opportunity of himself mixing the components to form the skin-care preparation which is suited to his skin-type and to the purpose for which it is used.

5 **WHAT WE CLAIM IS:—**

10 1. A skin-care preparation comprising at least one fat-free aqueous gel and at least one anhydrous fatty cream, the gel and the cream being present in a packaging container separately and without partitioning walls between said gel and cream, the gel and the cream being independently accessible in and separately removable from the container and in which the disposition of the gel and the cream in the container enable the gel and the cream to be simultaneously removed from the container.

15 2. A skin-care preparation as claimed in claim 1, in which the packaging container is a transparent glass or plastic container.

20 3. A skin-care preparation as claimed in any of the preceding claims, in which the or each fat-free gel and/or the or each anhydrous fatty cream contain colouring substances and/or pigments and/or other known additives for cosmetic preparations with the exception of emulsifying agents.

25 4. A skin-care preparation as claimed in claim 1 substantially as hereinbefore described in the Example.

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Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1977.
Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from
which copies may be obtained.